

# Notice of Allowability

Application No.

09/586,191

Examiner

Ayal I. Sharon

Applicant(s)

ISLES, ADRIAN J.

Art Unit

2123

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 3/21/2005.
2. ☒ The allowed claim(s) is/are 1-57.
3. ☒ The drawings filed on 02 June 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

KEVIN J. TEBKA  
SUPERVISORY  
PATENT EXAMINER

## **DETAILED ACTION**

### ***Introduction***

1. Claims 1-51 of U.S. Application 09/586,191 were originally filed on 06/02/2000. A preliminary amendment was filed with an RCE on 08/30/2004. An additional amendment was filed on 3/21/2005. Claims 1, 12, 14, 22-24, 28-34, 41-42, 46-47 and 49 have been amended, claims 9, 21, 27, 40, 45, and 50 have been cancelled, and new claims 52-57 have been added.
2. All of the independent claims (claims 1, 12, 14, 23, 29, 34, and 42) have been amended, and all the new claims depend from the amended independent claims.

### ***Response to Amendment***

#### **Re: Claim Rejections - 35 USC § 101**

3. Applicant's amendments to independent claims 1, 12, 14, 23, 29, 34, and 42 overcome the 35 U.S.C. §101 rejections to these claims (and their dependent claims) in the previous Office Action. Examiner has found Applicant's arguments regarding this issue (see amendment filed 3/21/2005, pp.19-21) to be persuasive. These rejections have been withdrawn.

*Re: Claim Rejections - 35 USC § 112*

4. Applicant's amendments to independent claims 1, 12, 14, 23, 29, 34, and 42 overcome the 35 U.S.C. §112 rejections to these claims (and their dependent claims) in the previous Office Action. Examiner has found Applicant's arguments regarding this issue (see amendment filed 3/21/2005, pp.21-22) to be persuasive. These rejections have been withdrawn.

*Re: Claim Rejections - 35 USC § 103*

5. Applicant's amendments to independent claims 1, 12, 14, 23, 29, 34, and 42 overcome the 35 U.S.C. §103 rejections to these claims (and their dependent claims) in the previous Office Action. Examiner has found Applicant's arguments regarding this issue (see amendment filed 3/21/2005, pp.22-23) to be persuasive. These rejections have been withdrawn.

***Examiner's Statement of Reasons for Allowance***

6. Applicant amended independent claims 1, 12, 29, and 42 to include limitations from the previously non-rejected (now cancelled) dependent claim 9 (see amendment filed 3/21/2005, pp.22-23). The cited prior art in the previous Office Actions does not expressly teach the following limitations, which appear in each of the amended independent claims:

... the lookup table including a total number of entries greater than or equal to a total number of memory operations that can occur over a given number of clock cycles,

the total number of memory operations being computed by computing a total number of memory operations that can be performed per clock cycle and multiplying the total number

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of memory operations that can be performed per clock cycle by the given number of clock cycles ...

According to Applicant's arguments (see amendment filed 3/21/2005, pp.22-23), the limitations of claim 9 have been "modified for stylistic purposes for better insertion with the claim language" of each of the independent claims 1, 12, 29, and 42.

7. Applicant amended independent claims 14, 23, and 34 to include limitations from the previously non-rejected (now cancelled) dependent claims 21, 27, and 40 (see amendment filed 3/21/2005, pp.22-23). The cited prior art in the previous Office Actions does not expressly teach the following limitations, which appear in each of the amended independent claims:

... computing a total number of memory operations that can be performed per clock cycle based on the number of read ports and write ports, and

multiplying the total number of memory operations that can be performed per clock cycle with the given number of clock cycles ...

According to Applicant's arguments (see amendment filed 3/21/2005, pp.22-23), the limitations of claim 9 have been "modified for stylistic purposes for better insertion with the claim language" of each of the independent claims 14, 23, and 34.

8. Examiner notes that the claimed limitation teaches away from the optimal solution. For example, U.S. Patent 4,855,946 ("**Ruben et al.**"), teaches at col.1, line 59 to col.2, line 10 that:

In this invention, the memory containing the lookup tables is substantially reduced in size due to the reduced amount of data needed. The data consists of fine and coarse values which have a 1/2 LSB phase step offset

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and a  $-1/2$  amplitude step offset. These offsets permit guardant replication using one quadrant.

In other words, elimination of duplicate data would enable a smaller lookup table.

In the case of the instant application, this would mean eliminating duplicate memory operations by indexing the entries by instruction type rather than location of the instruction in the sequence of clock cycles.

### ***Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ayal I. Sharon whose telephone number is (571) 272-3714. The examiner can normally be reached on Monday through Thursday, and the first Friday of a biweek, 8:30 am – 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached at (571) 272-3716.

Any response to this office action should be faxed to (703) 872-9306, or mailed to:

USPTO  
P.O. Box 1450  
Alexandria, VA 22313-1450

or hand carried to:

USPTO  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

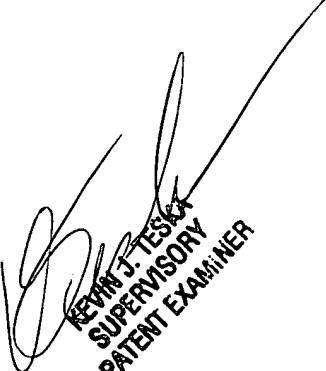
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center 2100 Receptionist, whose telephone number is (571) 272-2100.

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May 23, 2005



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